

BULAN RESTU BUS TICKETING SYSTEM (ONLINE)

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ABSTRACT

Traveling is a large growing business in Malaysia and other countries. Bus reservation system deals with maintenance of records of details of each passenger who had reserved a seat for a journey. It also includes maintenance of information like schedule and details of each bus. We observed the working of the Bus reservation system and after going through it, we get to know that there are many operations, which they have to do manually. It takes a lot of time and causes many errors. Due to this, sometimes a lot of problems occur and they were facing many disputes with customers. To solve the above problem, and further maintaining records of items, seat availability for customers, price of per seat, bill generation and other things, we are offering this proposal of reservation system. One of the bus company which have same kind of problem is Bulan Restu. In Bulan Restu bus ticketing system there has been a collection of buses, agent who are booking tickets for customer's journey which give bus number and departure time of the bus. According to its name it manages the details of all agent, tickets, rental details, and timing details and so on. It also manages the updating of the objects. In the tour detail there is information about bus, who has been taking customers at their destination, it also contain the detailed information about the customer, who has been taken from which bus and at what are the number of members he or she is taking his/her journey. This section also contain the details of booking time of the seat(s) or collecting time of the tickets, this section also contain the booking date and the name of agent which is optional, by which the customer can reserve the seats for his journey. In Bus no category it contains the details of buses which are old/new. New buses are added with the details with bus no, from city to the city, type of the bus, rent of a single seat, if the bus has sleeper than the cost of sleeper, if the cabin has the facility for sitting than the cost of cabin seats, tour timings of the new bus has also been stored. The main objective of this project is to provide the better work efficiency, security, accuracy, reliability, feasibility. The error occurred could be reduced to nil and working conditions can be improved. By using this

software, we can reserve tickets from any part of the world, via internet. This project provides and checks all sorts of constraints so that user does give only useful data and thus validation is done in an effective way.

ABSTRAK

Industri pengangkutan adalah perniagaan yang besar berkembang di Malaysia dan negara-negara lain. Sistem tempahan bus berkaitan dengan penyelenggaraan rekod dan butir-butiran setiap penumpang yang telah menempah tempat duduk untuk perjalanan. Ia juga termasuk penyelenggaraan maklumat seperti jadual dan butir-butiran bus. Setelah memerhatikan setiap kerja sistem tempahan Bas selepas , mendapat tahu bahawa terdapat banyak operasi yang mereka perlu untuk melakukan secara manual. Ia mengambil banyak masa dan menyebabkan banyak kesilapan. Disebabkan ini, kadang-kadang banyak masalah berlaku dan mereka telah menghadapi pertikaian dengan pelanggan. Untuk menyelesaikan masalah di atas, dan seterusnya mengekalkan rekod item, kekosongan tempat duduk untuk pelanggan, harga tempat duduk per, generasi rang undang-undang dan perkara-perkara lain, kami menawarkan cadangan ini sistem tempahan. Salah satu syarikat bas yang mempunyai masalah yang sama adalah Bulan Restu. Dalam sistem bas Bulan Restu tiket, ada maklumat tentang ejen bas, yang menempah tiket untuk perjalanan pelanggan yang memberikan nombor bas dan masa berlepas bas. Menurut namanya menguruskan butiran ejen semua, tiket, maklumat sewa, dan butir-butir masa dan sebagainya. Ia juga menguruskan pengemaskinian objek. Secara terperinci pelancongan terdapat maklumat mengenai bas, yang telah mengambil pelanggan di destinasi mereka, ia juga mengandungi maklumat terperinci tentang pelanggan, yang telah diambil dari mana bas dan apakah bilangan ahli dia mengambil beliau / seksyen journey. This juga mengandungi butir-butir tempahan masa tempat duduk atau mengumpul masa tiket, seksyen ini juga mengandungi tarikh tempahan dan nama ejen yang merupakan pilihan, di mana pelanggan boleh menempah kerusi untuk Bas journey. In kategori tidak mengandungi butir-butir bas yang lama / baru. Bas baru ditambah

dengan butir-butir dengan tiada bas, dari bandar ke bandar, jenis bas, sewa kerusi satu, jika bas mempunyai penidur daripada kos penidur, jika kabin mempunyai kemudahan untuk duduk daripada kos kerusi kabin, pewaktuan pelancongan bas baru telah juga stored. The Objektif utama projek ini adalah untuk menyediakan kerja kecekapan yang lebih baik, keselamatan, ketepatan, kebolehpercayaan, kebolehlaksanaan. Kesilapan yang berlaku dapat dikurangkan kepada sifar dan keadaan kerja yang boleh diperbaiki. Dengan menggunakan perisian ini, kita boleh menempah tiket dari mana-mana bahagian dunia, melalui internet. Projek ini menyediakan dan memeriksa pelbagai kekangan supaya pengguna yang tidak hanya memberikan data yang berguna dan dengan itu pengesahan dilakukan dengan cara yang berkesan.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Public transport (also **public transportation** or **public transit**) is a shared passenger's service which is available for use by the general public, as distinct from modes such as taxicab, car pooling or hired buses which are not shared by strangers without private arrangement.[1] Public transport modes include buses, trolleybuses, trams and trains, rapid transit (metro/subways/undergrounds etc) and ferries. Public transport between cities is dominated by airlines, coaches, and intercity rail. High-speed rail networks are being developed in many parts of the world.

Same goes to our Malaysian citizens. Using public transports becoming a huge helpful to student's, worker's traveler's and much more. Public transportation provides personal mobility and freedom to the people to move, saves fuel, provides economics opportunities and growth and of course save money. The main public transportation used by Malaysian is bus. There are lots buses companies providing these services such as Transnational, Consortium, and Mara liner express, and these are the big bus companies. These companies are occupied with full equipments or facilities for their customer to buy ticket. But, there also some small bus companies who trying to compete and upgrade them with other big companies' example like Bulan Restu Bus Company.

As I mentioned before, Bulan Restu is one the small companies which tries compete with big companies by upgrading. This bus company only has two branches, one at Kuala Lumpur and another one at Kuantan. They are planning to expend their services to few other states and they only have stand alone application to sell their ticket's and customer have to go their counter to buy it. They also are planning to create agents to rapid their sales. To fulfill all these needs, they need a web based application.

Bulan Restu Bus Ticketing system (online) is a web based application that developed for Bulan Restu bus companies. This application is developed for three types of user: 1) User/Customer 2) Agent & 3) Admin. For user part , the customer can view agent information, information about Bulan Restu, Contact details ,

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Privacy and Policy , Terms and Conditions, send Feedback, check information about tickets, FAQ, and finally buy tickets. For agent part, the agent can login, change password, cancel the bought ticket, and send feedback to admin. For admin part, admin will do exactly as same as agent but there will be extra features such as create agent, add deposit for agent and for himself, search agent list, view basic information about company, add destination, and view the feedback.

1.2 Problem Statement

Bulan Restu Bus Company trying to upgrade their services all the over Malaysia. There are going to establish new branches, there will be new agents, more bus services, so they need a proper and web based application to connect and communicate with admin and agents. Meanwhile, the admin no need to use stand alone application to check all is work, he can use this application to check his work from wherever he want as long there is a internet connection. Other than that, the customers have to the come to the counter to buy the ticket. It will be waste of time and energy because they have to come to the terminal again for take their bus. More over, their will be difficult to get bus ticket while holiday season. Using web application, they not only can buy ticket on time but they can buy the ticket with few clicks from the pc.

1.3 Objectives of the Research

- i) To develop a prototype for Bulan Restu Bus Ticketing System (online).
- ii) To implement Software Engineering documentation for this system

1.4 Scopes

In this section, scopes of the Bulan Restu Bus Ticketing system will be defined. They are several elements that involves which are System, User, Admin and Agent. This element is important to make sure that the scopes of the system did not override the boundaries of the system.

This system is a web based application .It can be accessed via the Internet so that the management can view the progress of the company everywhere. It has security elements whereas only authorized user can view the content of this web based application. In database framework, its contains a few tables that record the data, history, Information, agent details and add deposit that can be accessed and update by admin.

The Scopes are:

- i) This system specially design for “Bulan Restu” bus company
- ii) The admin only limited to adding destination, canceling ticket , booking ticket and adding agent.
- iii) The agent only limited to canceling ticket and booking ticket
- iv) The user need credit card to purchase the ticket
- v) Other functions such as report generating and calculate total sales are not include in

1.5 Thesis Organization

This thesis consists of six (6) chapters. Chapter 1 will discuss on the Introduction of the system/research. This chapter explains about overall system, problem statement that cause newly systems develop, objectives, scopes and thesis organization for the project.

Chapter 2 will discuss about Literature Review. In this chapter will describe about the technology and tools that suitable to apply in the system development based on the existing system and researches.

Software methodology is chapter 3 will explains about Methodology has been used in the development of the project. Besides that, this chapter also includes the Unified Modeling Language (UML) diagram such as use case and sequences diagram and approach hardware and software need.

Chapter 4 will discuss about Implementation and testing which the main purpose is to document all process involved in system development and will test all the system so is it function properly. Generally, this chapter upon the system development has been designed.

Meanwhile in chapter 5: Result and Discussion will describe the analysis of the result obtained and the constraint in completing the development of the project.

Lastly, Chapter 6, is the last parts of the thesis that will be summarizing the project that has been developed.

CHAPTER II

LITERATURE REVIEW

This chapter briefly describes the review on existing techniques related with “**Bulan Restu Bus Ticketing System (Online)**” that will be developed later. This chapter comprises two sections: The first section describes the comprehensive review on existing related systems. The second section describes the review on method, equipment, and technology previously used in the same domain.

2.1 Existing Systems

This section reviews the current and the existing systems related to bus ticketing system.

2.1.1 Bulan Restu Bus Company, Terminal Makmur, Kuantan (Manual)

Bulan Restu is one of the bus companies that available at Kuantan. This bus company do not have online system or any other source to sell their ticket. The only way to buy this bus company ticket is by approaching at their counter. According to their Kuantan manager, this bus company maybe do not have online system but there are lots of customers using their bus services everyday. More than that, this company also have their own way or procedure to sell the bus ticket's.



Figure 2.1: The Bulan Restu bus company's bus. This figure shows the image of the bus that used by Bulan Restu Bus Company

Their manager also said that, this bus company is still in developing stage. For a example, he showed a old version of bus ticket and new version bus ticket. More over , they planning to increase their destination time.

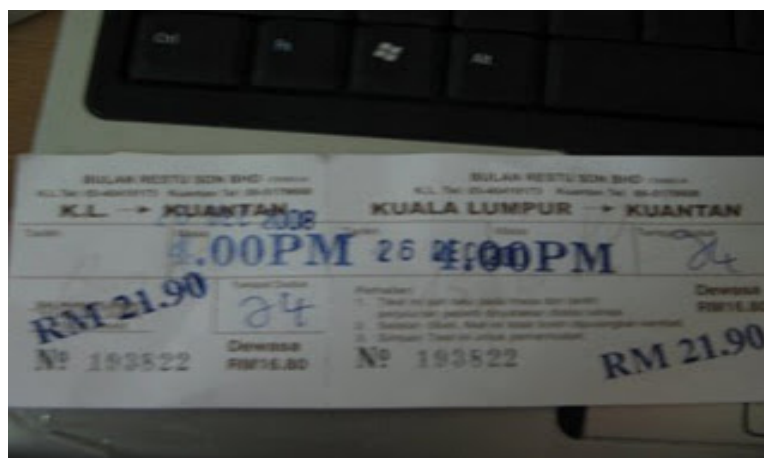


Figure 2.2: The older version of bus ticket used by Bulan Restu (paper)



Figure 2.3: The new version of bus ticket by Bulan Restu (print)

2.1.2 Terminal Bersepadu Selatan (Manual)

Terminal Bersepadu Selatan is the bus terminal where the place customers can buy all kind of bus ticket at same counter. Its integrated with bus, taxi, LRT and KTM. This terminal uses state-of-the-art technology to provide the upmost comfort and convenience for all South-bound bus passengers and users of our terminal. Easily accessible via road or rail, TBS-BTS has over 60 specialty outlets for all your 'shopping while travelling' needs. While you wait for your bus, kill time by shopping at the numerous boutiques and fashion outlets located within the terminal. If you're feeling famished or just need a drink to cool down, head on down to one of the many food and beverage outlets available. Various facilities and services are also available within the terminal – just enquire at the Information Counter if you require any assistance or check it out for yourself at one of our touch screen information kiosks. [2]

Services that are provided:-

- Information Counters
- POLIS & SPAD
- Public Information Display System (PIDS)
- Self-Service Kiosks
- Taxi Ticket Counter
- 19 Ticket Counter
- Wi-Fi



Figure 2.4: The main view of Terminal Bersepadu Selatan

2.1.3 Transnational Online Ticketing System

Transnational, a Malaysian icon and the leader of the express bus industry, is one of the most prominent and popular household brand names in Southeast Asia region, serving more than 200 destinations, covering all major cities and towns with 1,000 daily departures across Peninsular Malaysia and Singapore. Using the latest advancement in bus technologies, design and comfort, Transnational provides safe, enjoyable and affordable travel. [3]

This online system using a standard procedure to sell their ticket. First the user must login to the main page. Then figure will be your main page. After that, the user can search the desire trips at “plan your trip” column. After search, the user will be shown a list of trips available at time. From there, user can choose which trip they want to go. After choose, user will be direct to the agreement page. The further part only will continue if the user, agree to the agreement. Next, the user will ask to input the personal details for verification and contact purpose only. After input the details, the next page will the conformation and payment page. Here the user must do conformation and pay for bus ticket using Maybank2u or credit card. Finally, a computerized receipt will come out and the user can use it to travel on that day.



Figure 2.5: Main page of the website

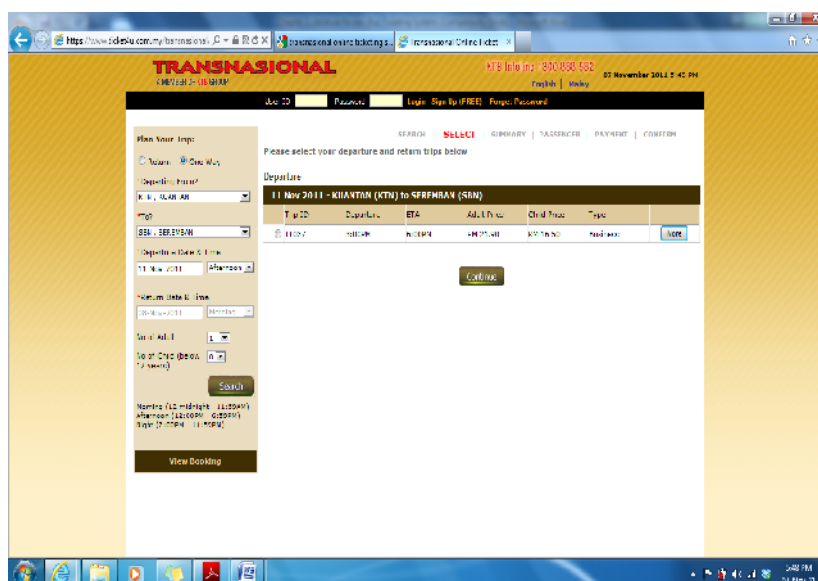


Figure 2.6: Interface to choose the trip